

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
)	
Amendment of Parts 2 and 95 of the Commission's)	
Rules to Create a Wireless Medical Telemetry)	ET Docket 99-255
Service)	

ORDER

Adopted: February 20, 2001

Released: February 23, 2001

By the Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau:

1. By this *Order*, the Wireless Telecommunications Bureau (Bureau), acting under delegated authority, designates the American Society for Health Care Engineering of the American Hospital Association (“ASHE/AHA” or “AHA”) to serve as the frequency coordinator for the Wireless Medical Telemetry Service (WMTS). As a condition of this designation, ASHE/AHA will be required to sign a Memorandum of Understanding setting forth its duties and the limits on its authority. Although we have determined to designate only a single WMTS frequency coordinator at this time, we nonetheless reserve the discretion to designate multiple WMTS frequency coordinators at a later date if circumstances indicate that such action is warranted.

I. BACKGROUND

2. In June 2000, the Commission established the WMTS to enhance the reliability of medical telemetry equipment that is vital to the effective care of patients with acute and chronic health problems.¹ Medical telemetry equipment is used in health care facilities to transmit patient measurement data, such as pulse and respiration rates, to a nearby receiver. By permitting such remote monitoring of patients’ vital signs, medical telemetry equipment provides significant benefits to patients in terms of mobility and comfort. In addition, because wireless medical telemetry equipment allows remote monitoring of several patients simultaneously, it may be a significant tool in reducing health care costs.

3. Prior to the establishment of the WMTS, medical telemetry devices could be operated only on an unlicensed basis under Part 15 of the FCC’s rules (on vacant VHF and UHF television channels) or on a secondary basis to private land mobile radio (PLMR) operations under Part 90 (in the 450-470 MHz band).² The Commission was concerned that recent regulatory developments – the introduction of digital television service and the rechannelization of the 450-470 MHz band in the PLMR refarming proceeding – would result in more intensive use of the spectrum by the services with primary status, subjecting wireless medical telemetry operations to greater interference and perhaps precluding such operations entirely in

¹ Amendment of Parts 2 and 95 of the Commission’s Rules to Create a Wireless Medical Telemetry Service, *Report and Order*, ET Docket 99-255, 15 FCC Rcd 11206 (2000) (*Report and Order*).

² See 47 C.F.R. §§ 15.242, 90.238, 90.267.

many instances.³ To ensure that wireless medical telemetry devices can operate free of harmful interference, the Commission allocated 14 megahertz of spectrum to the WMTS on a primary basis. The spectrum is allocated in three blocks: 608-614 MHz, 1395-1400 MHz, and 1429-1432 MHz.⁴

4. With the support of the commenting parties, the Commission determined that WMTS equipment should be “licensed by rule” in lieu of individual licensing, because operators in the WMTS will not be in competition with each other and therefore do not need to be assigned protected service areas.⁵ Given that WMTS equipment will not be individually licensed, there is a need to establish some mechanism to track the usage of WMTS transmitters. This information, the Commission decided, should be maintained in a database by one or more private sector frequency coordinators to be designated by the Bureau. The database will record all WMTS equipment identified by location, operating frequency, emission type and effective radiated power. It also will contain the equipment manufacturer and model number for each deployed WMTS device, as well as specified contact information for each authorized health care provider.⁶ It is envisioned that this database will assist authorized health care providers and equipment manufacturers in ascertaining which frequencies may be used in a given geographic area without fear of interference.⁷ In the *Report and Order*, the Commission expressly stated that a WMTS frequency coordinator would not have authority to recommend specific frequencies to users or to resolve disputes.⁸

5. On September 28, 2000, we released a *Public Notice* establishing a filing window for requests to be designated as a WMTS frequency coordinator.⁹ As set forth in the *Report and Order*,¹⁰ we indicated that a WMTS frequency coordinator must be familiar with the medical telemetry user community, and must make its services available to all parties on a first-come, first-served, and non-discriminatory basis. We also specified that the WMTS frequency coordinator(s) must be willing to serve a five-year term, which could be renewed by the Commission. Applicants were further reminded¹¹ that, pursuant to Section 95.1113 of the Commission’s Rules,¹² a WMTS frequency coordinator will be required to (1) review and process coordination requests submitted by authorized health care providers,

³ *Report and Order*, 15 FCC Rcd at 11206-08 ¶¶ 2-6.

⁴ See 47 C.F.R. § 2.106, footnotes US350, US351, US352; 47 C.F.R. § 95.630.

⁵ *Report and Order*, 15 FCC Rcd at 11216 ¶ 27. The Commission noted that there were no comments opposing the proposal that WMTS equipment be licensed by rule. *Id.*

⁶ See 47 C.F.R. §§ 95.1111, 95.1113.

⁷ *Report and Order*, 15 FCC Rcd at 11217-20 ¶¶ 32-42.

⁸ *Id.* at 11218 ¶ 33.

⁹ Wireless Telecommunications Bureau Opens Filing Window for Requests to Be a Frequency Coordinator in the Wireless Medical Telemetry Service, *Public Notice*, 15 FCC Rcd 19038 (WTB PSPWD 2000) (*Public Notice*).

¹⁰ *Report and Order*, 15 FCC Rcd at 11218 ¶33.

¹¹ *Public Notice*, 15 FCC Rcd at 19038-39.

¹² 47 C.F.R. § 95.1113.

as required in Section 95.1111¹³; (2) maintain a database of WMTS use; (3) notify users of potential conflicts; and (4) coordinate WMTS operation with radio astronomy observatories and Federal Government radar systems as specified in Sections 95.1119 and 95.1121.¹⁴ We required that each party requesting designation as a WMTS frequency coordinator include the following information:

- a description of the applicant and its qualifications;
- how the applicant will avoid conflicts of interest;
- the applicant's proposed fee structure;
- the length of time before the applicant will be able to begin its duties as a WMTS frequency coordinator;
- a statement that the applicant will be able and willing to work with other WMTS frequency coordinators should we decide to designate more than one frequency coordinator; and
- the geographic area(s) for which the applicant is willing to coordinate. (We noted that a preference would be given to applicants who propose nationwide coordination.)¹⁵

6. In response to the *Public Notice*, we received three requests¹⁶ for designation as WMTS frequency coordinator, one from ASHE/AHA,¹⁷ one from Forest Industries Telecommunications (FIT),¹⁸ and one jointly from the International Association of Fire Chiefs, Inc. (IAFC) and the International Municipal Signal Association (IMSA).¹⁹

¹³ 47 C.F.R. § 95.1111.

¹⁴ 47 C.F.R. §§ 95.1119, 95.1121.

¹⁵ *Public Notice*, 15 FCC Rcd at 19039.

¹⁶ Earlier, in response to the *Notice of Proposed Rule Making* in this proceeding, five commenting parties expressed an interest in becoming a frequency coordinator for the WMTS. In addition to AHA and IAFC/IMSA, the commenters expressing an interest in becoming WMTS frequency coordinator were Comsearch, IIT Research Institute, and the Personal Communications Industry Association (PCIA). *See Report and Order*, 15 FCC Rcd 11218 n.83. In the *Public Notice* opening the WMTS frequency coordinator filing window, we emphasized that those expressions of interest antedating the *Report and Order* would not constitute a response to this filing window, and that if any of those parties remained interested in serving as a WMTS frequency coordinator, they would have to file a new request within the filing window. *See Public Notice*, 15 FCC Rcd at 19038 n.4.

¹⁷ Request of the American Society for Health Care Engineering of the American Hospital Association for Certification as WMTS Frequency Coordinator, filed October 6, 2000 (ASHE/AHA Request).

¹⁸ Request of Forest Industries Telecommunications for Designation as WMTS Frequency Coordinator, filed October 10, 2000 (FIT Request).

¹⁹ Letter from International Association of Fire Chiefs, Inc. and International Municipal Signal Association to Ms. Magalie Roman Salas, Secretary, FCC, dated October 10, 2000, *Re: Wireless Medical Telemetry Service (WMTS); Request for Designation as Frequency Coordinator, DA 00-2013* (IAFC/IMSA Request). Significantly, however, IAFC/IMSA supports designation of AHA as the WMTS frequency coordinator, conceding that AHA "is the most appropriate and logical party" to serve in that role; IAFC/IMSA seeks to be designated as WMTS frequency coordinator only if the Bureau determines to designate a party other than AHA. *Id.* at 1-2.

II. WMTS FREQUENCY COORDINATOR REQUESTS

7. *ASHE/AHA*. The AHA was organized with the mission of advancing the health of individuals and communities. It represents and serves hospitals and health care networks, as well as their patients and communities. It is comprised of close to 5,000 institutional, 600 associate, and 40,000 personal members. The AHA gathers and analyzes data to track trends in hospital and health care services and to support policy development. It also seeks to foster innovation in the structure and delivery of health care services through research and demonstration projects. The American Society for Health Care Engineering (ASHE), established in 1956 as the first Personal Membership Group of the AHA, is a professional society representing persons responsible for “the environment of care used in health care delivery.” ASHE/AHA asserts that “[n]o organization is more knowledgeable than AHA about the rules, procedures, and goals of the WMTS, or more familiar with the medical telemetry user community.”²⁰

8. ASHE/AHA says it will have no conflicts of interest in serving as the WMTS frequency coordinator. It explains that it is not in any way involved in the production, sale, distribution, or installation of medical telemetry equipment. In addition, it pledges to comply with the requirement to honor all requests from eligible health care providers on a non-discriminatory, first-come, first-served basis. It specifically commits to not discriminate between AHA members and non-members, in terms of either fees charged or services provided.²¹

9. ASHE/AHA contends it would be premature to commit to a specific fee structure for WMTS coordination because it was involved in ongoing negotiations with organizations with proven frequency coordination experience to provide technical and administrative support with respect to the WMTS database. Until a final agreement has been reached with the chosen subcontractor, ASHE/AHA believes it cannot comment with any detail regarding the ultimate fee structure. It reiterates, however, that it will not discriminate among members and non-members in setting fees. It represents, moreover, that it will maintain and operate the WMTS database on a cost-effective, not-for-profit (to ASHE/AHA) basis.²²

10. Addressing the remaining factors set forth in the *Public Notice*, ASHE/AHA states that it is willing to commence service promptly after appointment as WMTS frequency coordinator. Further, it expects to be able to provide full-service database management services within 120-150 days from the date of appointment. Although it urges designation of only one coordinator, ASHE/AHA pledges to work cooperatively with any other WMTS frequency coordinator that may be designated if a multiple coordinator approach is adopted. Finally, ASHE/AHA proposes to provide coordination on a nationwide basis.²³

11. *FIT*. FIT is a trade association representing the land mobile radio communications interests of the forest products industry. It has been a certified PLMR frequency coordinator for over fifty years, and is now one of the coordinators of the Part 90 Industrial/Business pool frequencies. FIT asserts that it “has an excellent reputation in the private land mobile community for being a ‘user friendly’

²⁰ ASHE/AHA Request at 2-3.

²¹ *Id.* at 3.

²² *Id.* at 4.

²³ *Id.* at 4-6.

frequency coordinator.”²⁴

12. FIT states that it is familiar with the medical telemetry user community. It notes that as a Part 90 frequency coordinator, it has coordinated Industrial/Business channels for hospitals of all sizes around the country. In addition, FIT states that its staff has carefully monitored developments in the WMTS rulemaking proceeding. Moreover, if designated as a WMTS frequency coordinator, FIT pledges to establish a technical/operational advisory board in conjunction with users and manufacturers of medical telemetry equipment. This board, it says, “will ensure that concerns of the user community are properly addressed, and that technical and operational knowledge is shared and end user goals are met.”²⁵

13. FIT anticipates no conflict of interest problems if it is designated to serve as a WMTS frequency coordinator. In this connection, it represents that it has no affiliation, direct or indirect, with any hospital, health care facility, medical association or other medical organization. It says it will process registrations and provide services on a first-come, first-served, and non-discriminatory basis, as mandated by the Commission, and that it will use the WMTS database only for authorized coordination purposes.²⁶

14. FIT offers a proposed fee structure for certification and modification services for each of three possible scenarios: a single nationwide coordinator; a few coordinators each responsible for distinct non-overlapping regions; and multiple nationwide coordinators with overlapping jurisdictions. The lowest fees are associated with a single coordinator model, with higher fees for non-overlapping multiple coordinators, and still higher fees for overlapping multiple coordinators. Under FIT’s fee structure, there would be an administrative fee for initial certifications of between \$150 and \$200 per facility, as well as a fee of \$15 to \$25 per registered transmitter unit. For modifications of previously registered installations, FIT would charge between \$50 and \$75 as the administrative fee, and \$15 as the per-unit fee. FIT also represents, among other things, that it would impose no charge on a WMTS user for an on-line “general search” of the database to identify facilities within a twenty-kilometer radius of a certified facility.²⁷

15. FIT expects that it could provide the full range of WMTS frequency coordination services beginning sixty days after designation. Pointing to a long record of working well with fellow Part 90 PLMR frequency coordinators, FIT asserts that it is willing and able to work with other WMTS coordinators. Finally, FIT expresses a willingness to serve as a nationwide coordinator, and says it will provide around-the-clock staffing to respond to emergency interference situations.²⁸

16. *IAFC/IMSA*. With a membership of approximately 12,000 fire service officials, IAFC is the professional society for senior management in the fire service. IMSA is a non-profit organization dedicated to the development and use of electrical signaling in communications systems, including the use of radio technology for public safety purposes. Its members include representatives of federal, state, local and international governmental bodies. IAFC/IMSA has been certified as the frequency coordinating committee for the Fire Radio Service (FRS) and the Emergency Medical Radio Service (EMRS) and, in

²⁴ FIT Request at 2-3.

²⁵ *Id.*

²⁶ *Id.* at 3.

²⁷ *Id.* at 3-4.

²⁸ *Id.* at 5-6.

conjunction with PCIA, the Special Emergency Radio Service (SERS). IAFC/IMSA is also recognized as one of four entities authorized to coordinate Part 90 Public Safety Pool frequencies. IAFC/IMSA states that it has more than three decades of experience in public safety frequency coordination and that two of the services it coordinates, EMRS and SERS, involve medical communications, albeit in a mobile rather than a fixed environment.²⁹

17. Like the other applicants, IAFC/IMSA foresees no conflict of interest problems if it is designated to serve as WMTS frequency coordinator. It submits that all coordination requests will be handled on a first-come, first-served, non-discriminatory basis. “The frequency coordination function,” it adds, “is administered on a quasi-independent basis from other association services, and so is insulated from any potential user influence.”³⁰

18. With respect to a proposed fee structure, IAFC/IMSA points to its success in the competitive environment of Part 90 frequency coordination as *prima facie* evidence that its fees for such coordination are reasonable. It states that it charges a coordination fee of \$200 for new frequency assignments for simplex or duplex use in the Part 90 PLMR services it now coordinates, and it expects that the fee it would charge for coordinating WMTS installations would not exceed that amount, and likely would be less.³¹

19. If selected, then IAFC/IMSA expects to be able to process frequency utilization notifications immediately, using manual processing until a computerized database management program can be created, and expects that the computer program could be established within thirty to sixty days. IAFC/IMSA further promises that it will work cooperatively with any other WMTS frequency coordinators that the Bureau may designate. Finally, it proposes to provide coordination on a nationwide basis.³²

III. DECISION

20. As a preliminary matter, we must decide whether to designate one WMTS frequency coordinator or multiple WMTS frequency coordinators. In the *Report and Order*, the Commission noted that in the past it has sought to introduce market forces into the frequency coordination process, where appropriate. Accordingly, instead of adopting a rule restricting database management of WMTS spectrum to a single coordinator, the Commission left that decision to be made by the Bureau pursuant to its existing delegated authority.³³

21. Both ASHE/AHA and IAFC/IMSA believe, as do other parties who commented on this issue in response to the *Notice of Proposed Rule Making* in the WMTS rulemaking proceeding, that there should be a single, nationwide WMTS frequency coordinator.³⁴ After considering this matter, we agree.

²⁹ IAFC/IMSA Request at 2-3.

³⁰ *Id.* at 3.

³¹ *Id.*

³² *Id.*

³³ *Report and Order*, 15 FCC Rcd at 11218 ¶ 36 (citing 47 C.F.R § 0.131(m)).

³⁴ See ASHE/AHA Request at 5-6; IAFC/IMSA Request at 2; Comsearch Comments (ET Docket No. 99-255) at 3; IIT Research Comments (ET Docket No. 99-255) at 4. FIT opposes a system of multiple coordinators with overlapping geographical coverage, contending that such a system would necessitate the establishment of a (continued....)

While the introduction of competition in the frequency coordination process for PLMR services³⁵ has brought significant benefits, we believe that frequency coordination for WMTS is better suited to a single coordinator model given the functions that a WMTS frequency coordinator is to perform. In this regard, we believe that designating a single WMTS frequency coordinator will simplify the coordination process, reduce the costs of coordination, and expedite the deployment of wireless medical telemetry equipment. A single centralized database is easier to maintain than multiple databases, and gives medical telemetry equipment users and manufacturers a single point of contact to obtain all of the information they need regarding potential frequency conflicts. If there were multiple coordinators, moreover, there would have to be a high degree of cooperation among them, and significant effort would have to be undertaken to ensure that each coordinator, at all times, has a complete database; any lapses in communication among coordinators could result in harmful interference to medical telemetry operations, thereby potentially jeopardizing patient care. Moreover, because the WMTS frequency coordinator will not be a decision maker as to which frequency should be used, but will be responsible only for notifying users of potential conflicts, we do not anticipate that multiple WMTS frequency coordinators would directly spur a competitive environment that would produce an acceptable speed of service. Finally, we are concerned that compared to a single coordinator, a multiple coordinator scheme could result in higher coordination costs, and hence higher coordination fees, because the costs incurred by any given coordinator would be spread across a smaller base of users and each coordinator would incur additional costs necessitated by the existence of other coordinators. In light of these considerations, we conclude that it is appropriate to designate a single WMTS frequency coordinator, at least initially. We reserve the discretion to revisit this issue in the future if experience suggests such a course would be prudent.

22. Based on our review of the record in this proceeding, we find that ASHE/AHA is the most qualified party to serve as the single WMTS frequency coordinator. ASHE/AHA has singular attributes that we believe make it the superior candidate to oversee WMTS frequency coordination. Although we arrive at this conclusion on the basis of our own assessment of the requests, we find it telling that one of the other parties, IAFC/IMSA, concurs that ASHE/AHA is the most appropriate and logical entity to serve as WMTS frequency coordinator.³⁶

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coordinator standards committee and would raise a host of logistical problems while adding to the costs of database development. FIT suggests, however, that as an alternative to selecting a single coordinator for the entire nation, we could select a limited number of coordinators, each responsible for a distinct region of the country, with no geographical overlap. FIT Request at 1-2. Accepting for the sake of argument that a system of regional, non-overlapping WMTS frequency coordinators would avoid many of the problems that might inhere in a system of multiple WMTS frequency coordinators with overlapping jurisdictions, it remains that any system of multiple coordinators would create potential problems not present in a single coordinator model. In the absence of any identified benefits to a multiple coordinator approach, we believe that a single coordinator approach is preferable to *any* system of multiple coordinators, for the reasons set forth in this *Order*.

³⁵ See Replacement of Part 90 by Part 88 to Revise the Private Land Mobile Radio Services and Modify the Policies Governing Them and Examination of Exclusivity and Frequency Assignment Policies of the Private Land Mobile Radio Services, PR Docket No. 92-235, *Second Report and Order*, 12 FCC Rcd 14307 (1997).

³⁶ See n.19, *supra*. We also note that both Comsearch and the Industrial Telecommunications Association, Inc., in separate *ex parte* filings, similarly express support for the designation of ASHE/AHA as the sole WMTS frequency coordinator. See Letter from H. Mark Gibson, Comsearch, to D'wana Terry, Chief, Public Safety and Private Wireless Division, Wireless Telecommunications Bureau, dated October 19, 2000; Letter from Mark E. Crosby, President/CEO, Industrial Telecommunications Association, Inc., to Thomas J. Sugrue, Chief, Wireless Telecommunications Bureau, dated October 25, 2000.

23. Even before the WMTS rulemaking proceeding was initiated, AHA had assumed a leadership role in promoting the interference-free operation of wireless medical telemetry devices. AHA continues to embrace that role, and has played an important part in the WMTS rulemaking from the beginning. In fact, the recommendations of the AHA Task Force on Medical Telemetry were a catalyst for this rulemaking proceeding, and those recommendations, including draft regulations, ultimately formed the basis of the proposals in the *Notice of Proposed Rule Making*.³⁷ AHA also surveyed hospitals of various sizes in both metropolitan and suburban/rural areas to ascertain the amount of dedicated spectrum needed for medical telemetry operations, and its determination in this regard was found to be accurate by the Commission.³⁸ As a result, we believe that ASHE/AHA has demonstrated an ability to work with the relevant user communities to address wireless medical telemetry issues.

24. In addition, we believe that ASHE/AHA is uniquely qualified to act as the WMTS frequency coordinator by virtue of its institutional knowledge of the health care industry in general, and its familiarity with the medical telemetry user community in particular. The Commission has directed that the WMTS frequency coordinator must be familiar with the medical telemetry user community.³⁹ While all three candidates claim such familiarity, we attach great weight to the fact that AHA alone has the medical telemetry user community as part of its core constituency. Thus, not only does ASHE/AHA clearly possess the requisite knowledge of the medical telemetry user community, it has a special motivation to ensure that it serves the needs of that community to the best of its ability. In sum, while FIT and IAFC/IMSA both have impressive frequency coordination credentials, ASHE/AHA's special relationship to the WMTS user community and extensive experience with wireless medical telemetry equipment militate strongly in favor of the selection of ASHE/AHA as the WMTS frequency coordinator.

25. We also find that ASHE/AHA possesses all of the other qualifications to serve as WMTS frequency coordinator, as specified in the *Report and Order* and recounted in the *Public Notice*. No party has challenged ASHE/AHA's qualifications or interposed any objection to the selection of ASHE/AHA. Although ASHE/AHA cannot match the frequency coordination experience of FIT and IAFC/IMSA, we are confident that it will bring appropriate technical expertise to the oversight of the WMTS database. We note that ASHE/AHA has indicated that it plans to contract with an organization with demonstrated frequency coordination experience to provide technical and administrative support in establishing and maintaining the database.⁴⁰ Further, we do not believe that the lack of prior frequency coordination experience is a significant factor against selection of ASHE/AHA as the WMTS frequency coordinator given that, unlike in the PLMR context, it will not be called upon to resolve frequency conflicts. Further, under the circumstances presented, we believe that the more significant factor in our determination is ASHE/AHA's knowledge of and familiarity with the wireless medical telemetry user community.

³⁷ See *Report of the American Hospital Association Task Force on Medical Telemetry*, dated April 15, 1999, a copy of which was inserted into the record of the rulemaking proceeding. AHA's Task Force on Medical Telemetry was established in coordination with the U.S. Food and Drug Administration in response to a March 1998 incident in which interference to medical telemetry equipment was caused by the digital television test transmissions of a television station in Texas. See Amendment of Parts 2 and 95 of the Commission's Rules to Create a Wireless Medical Telemetry Service, *Notice of Proposed Rule Making*, ET Docket No. 99-255, 14 FCC Rcd 16719, 16722 ¶¶ 9-10 (1999).

³⁸ See *Report and Order*, 15 FCC Rcd at 11209-11210 ¶¶ 8, 10.

³⁹ *Id.* at 11218 ¶ 33.

⁴⁰ ASHE/AHA Request at 4.

IV. CONCLUSION AND ORDERING CLAUSES

26. ASHE/AHA is accordingly DESIGNATED to serve as the frequency coordinator for the Wireless Medical Telemetry Service. This designation will take effect upon the execution by ASHE/AHA and the Wireless Telecommunications Bureau of a Memorandum of Understanding regarding ASHE/AHA's responsibilities and authority as WMTS frequency coordinator. Once this takes place, we will announce by Public Notice how interested parties may contact ASHE/AHA.

27. This action is taken under the delegated authority contained in Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

D'wana R. Terry
Chief, Public Safety and Private Wireless Division
Wireless Telecommunications Bureau